

Appl. No. 10/773,522
Amdt. dated July 6, 2005
Reply to Office Action of April 6, 2005

PATENT

Amendments to the Drawings:

The attached sheet of drawings includes changes to Figures 1, 2, 3, 4, and 5. This sheet, which includes Figures 1, 2, 3, 4, and 5. replace the original sheet including Figures 1, 2, 3, 4, and 5.

Attachment: Replacement Sheets
Annotated Sheets Showing Changes

REMARKS/ARGUMENTS

Claims 1-10 are pending. Claims 11-26 are cancelled.

In the Office Action mailed on April 06, 2005, the Examiner indicated that a certified copy of the Chinese application filed in China on 12/30/03 has not been filed as required by 35 U. S. C. 119 (b). Applicants have requested a certified copy of the Chinese application and will forward it as soon as received.

In the Office Action, the Examiner objected to Figure 1 as it includes a diagram not discussed in the specification. Applicants have amended the specification to include a description of the diagram. The Examiner also objected to Figures 1-5 as having reference numbers not clearly written or not properly labeled. Accordingly, Applicants have corrected the Figures to overcome the Examiner's objection. Applicants respectfully request reconsideration and withdrawal of the objection to the drawings.

Claims 1-10 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. As shown above, Applicants have amended claim 1 to clarify the invention to overcome Examiner's objection. Accordingly, the Examiner's objection is now moot.

Claim 1-4 and 6-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lui (US 2005/0006694 A1) in view of Chiau (US 6,372,580 B1). Claims 5 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Liu with Shiau as applied to claims 1-4 and 6-8, and further in view of Iwata et al. (US 2004/0262650A1). Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Liu with Shiau as applied to claims 1-4 and 6-8, and further in view of Chang (US Patent No. 5,506,160). The Examiner indicated that Lui fails to teach sidewall spacers on the gate structure and the steps of applying a refractory metal on the polysilicon gate and exposed portions of source/drain region to form silicide in the manner claimed. Shiau was indicated as forming sidewall spacers on the gate structure and forming silicide on the gate structure and source/drain regions. As noted, the cited references, alone or in combination, fail to disclose or suggest the present method of manufacturing a memory cell with

buried bit lines and silicided polysilicon word lines isolated by an array of blocks as recited in claim 1, as amended. The present method includes forming a trench isolation structure within a cell region in a semiconductor substrate, the trench isolation structure being provided to separate a bit line region of a cell from another bit line region from another cell. A gate structure is formed within the cell region. The present method also include forming a first sidewall spacer overlying a first side of the gate structure and forming a second sidewall spacer overlying a second side of the gate structure. Each of the sidewall spacers including the first sidewall spacer and the second sidewall spacer are adapted to extend over and overlap a portion of the trench isolation structure and to extend and overlap a portion of source/drain regions. The references, alone or in combination fail to show this feature. Lui is "silent" about a sidewall structure. Shiau is "silent" about a trench isolation structure. The sidewall structures suggested by Shiau do not extend over and overlap a portion of the silicide on the source/drain regions (Figure 11D) and do not extend over and overlap a portion of the trench isolation structure as in claim 1, as amended. Accordingly, claim 1 is patentable over the cited references for at least these reasons under 35 U.S.C. §103(a). Additionally, claims 2-10 which depend upon claim 1 should also be patentable based on the same rationale as discussed for claim 1. Accordingly, all claims are patentable for at least these reasons and others.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Richard T. Ogawa', written over a horizontal line.

Richard T. Ogawa
Reg. No. 37,692

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
Attachments
WCF:pan
60468388 v1



FIGURE 1





